	Dec. '51,		Dec. '52,	
SEEDS.				
Clover, per lb	0 08½ a 0 09		0 10½ a 0 10¼	
Timothy, mowed and reaped, per tierce	14 00 a 18 00		17 50 a 22 50	
Flax, American, rough, per bushel	1 35 a 1 37½		1 45 a 1 50	
Linseed, Calcutta	— a —		1 70 a 1 75	
SALT.				
Turk's Island, per bushel	0 20 a —		0 27 a 0 28	
St. Martin's	0 18½ a 0 20		— a —	
Liverpool, ground, per sack	0 90 a 0 92½		— a 1 20	
Liverpool, fine	1 05 a 1 20		— a —	
Liverpool, fine Ashton's	1 40 a 1 45		2 00 a 2 25	
WHALEBONE.				
Northwest coast	0 46 a 0 47		0 47 a 0 50	
LIME.				
Common Rockland, per barrel	1 00 a —		1 12½ a —	
Lump do. do.	1 31¼ a —		1 37½ a —	
TALLOW.				
American, per lb	0 7¼ a —		0 10 a 0 10¼	
Slaughtered hogs	0 6 a 0 6¼		0 8 a 0 8½	
HOPS.				
Eastern and Western, new	0 30 a 0 35		0 21 a 0 25	

The year 1852 will long be remembered and looked to as one of unusual prosperity in nearly all branches of trade, indicative of the rapid march of the United States in all the elements of real greatness.

ART. III.—VALLEY OF THE AMAZON.

No. II.

BOLIVIA TRIBUTARY TO THE ATLANTIC—FRIENDLY DISPOSITION TO THE UNITED STATES—POLICY OF COMMERCE—FREE NAVIGATION OF THE AMAZON—LLAMAS AND WOOL—POTOSI—GOLD, SILVER, DIAMONDS AND QUICKSILVER—PERUVIAN BARK—WONDERFUL FERTILITY OF SOIL—HOT SPRINGS AND RUINS—COCOA, ITS MARVELOUS PROPERTIES—SALT—PORTAGE BETWEEN THE LA PLATA AND AMAZON—THE LOST MINES OF URUCUMAGUAN, THEIR FABULOUS WEALTH—GOLD WASHINGS—PORTS OF ENTRY, AND STEAM NAVIGATION UPON THE AMAZONIAN TRIBUTARIES OF BOLIVIA—HEALTH AND LONGEVITY—OPENING THE NAVIGATION OF THE AMAZON—FREE PORTS IN BOLIVIA—CARAVANS OVER THE MOUNTAINS VS. STEAMBOATS DOWN THE RIVERS—FOUNTAIN-HEADS OF THE AMAZON AND THE MISSISSIPPI—LAKES ITASCA AND MOROCOCHA, 10,000 MILES APART, THEIR WATERS MEET IN THE FLORIDA PASS—PRICES OF PRODUCE ON THE UPPER AMAZON—COTTON CLOTH AND WAX THE CURRENCY OF THE COUNTRY—GOLD, AND HOSTILE INDIANS—GREAT SARSAPARILLA COUNTRY—COURSE OF TRADE WITH THE UPPER AMAZON—PORTS OF ENTRY—STEAMBOAT NAVIGATION TO THE ANDES—MINERAL WEALTH—LIEUTENANT HERNDON'S REPORT.

(Continued from May No.)

BOLIVIA has but one seaport on the Pacific, that is Cobija—an open roadstead, and a miserable village, at the head of the great desert of Atacama. The land transportation between this port and the agricultural districts of the republic is too rough, too tedious, and too expensive, ever to admit of its becoming a commercial emporium. The direction in which Bolivia looks for an outlet to market for her produce is along her navigable water-courses that empty into the Amazon, and then down that stream to the sea, where the winds and the currents are such as to require that produce to pass by our doors.

Bolivia understands this, and her President has expressed the most earnest desire to draw closely the bonds of friendship, commerce, and navigation, which are destined to bind his country to this.

Bolivia, we have seen, owns navigable streams that are tributary both to the Amazon and La Plata. The free air of heaven and the glad waters of the

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earth were put here by the Almighty for the well-being of mankind. Use without exhaustion is the only condition annexed by the laws of man to the air and water, being considered as the common property of the world.

Have not, therefore, Bolivia and the seven other independent nations that own navigable streams emptying into the Amazon or the La Plata, but which do not own its mouth, the right to follow and to "use without exhaustion" each its own navigable waters to the sea?—And does not the "policy of commerce" require the enforcement of that right, so far as it concerns any or all of these eight upland nations which may wish to trade with us and the rest of the world through those natural channels and commercial highways?

This is one of the questions that we propose to consider. But before showing who it is that by a Japanese policy here at our doors is shutting out commerce from the finest portions of the world, we wish to show that the free navigation of the Amazon is not an abstraction, but that there are now there, in actual existence, all the elements of a profitable, large, and growing commerce, and that, therefore, the question is one of practical importance. We will, therefore, speak of the productions of this interesting—we had almost said classic—land.

In the Puna country of Bolivia we find the llama, the vicuna, and the alpaca. Immense flocks of sheep feed in its pastures and lie down upon its hills.

Our friend, Lieutenant Gibbon, who about two years ago was sent with Lieutenant Herndon by the Navy Department to explore the Amazon from its sources to its mouth, writes that it is a wool-growing country; that immense flocks of sheep are tended there. Indeed, he says, the country is over-populated.

Speaking, a few weeks since, with a northern manufacturer upon this subject, he informed me that he had then just bought $100,000 worth of this Puna wool, which, instead of coming down the Amazon, in sight of which almost it was clipped, this Japanese policy, that keeps the mouth of that river closed, had compelled it to go up into the region of the clouds, in order that it might cross the Andes and reach the free waters of the Pacific. Its voyage was then around Cape Horn to Boston.

Chuquisaca, or the "City of Silver," is situated, as already stated, on the "divide" between the Amazon and the La Plata.

On one side the waters of the Pilcomayo flow south; on the other, those of the Madeira flow north, on their way to the "king of rivers."

Near by Chuquisaca is Potosi. Here we pass from the regions of gold and diamonds to those of quicksilver and silver.

Since the discovery of the mines of Potosi there have been extracted from them not less than *sixteen hundred millions of dollars!* The vein is said to be as rich now as ever it was; but it is not worked for the want of mechanical force, such as steam and the facilities of commerce alone can give.

It is from the Atlantic slopes of Bolivia that we get the bark for the manufacture of quinine. The cinchona, or the Peruvian bark, as it is called, is gathered there on those navigable watercourses of the Atlantic, and taken thence on the backs of sheep and asses six hundred miles across the Andes to the Pacific.

Two millions dollars' worth of this bark was gathered there the last year. Does not this afford a commercial basis sufficient to support steam navigation up the Amazon to Bolivia? Bolivia has there a thrifty and industrious population of a million and a half, whose commercial wants would be supplied by this new route. One of her cities (Potosi) has been supplied with water, at the cost of $3,000,000 to construct the works. Can commerce with such a people be an abstraction? The productions of the eastern slopes of Bolivia are thus described by Castelnau:

"The productions of the country are in great variety. Sugar-cane, which is gathered eight months after planting, is the staple of the province of Cercado. Coffee, successfully cultivated in this province, as well as in that of Chiquitos, yields fruit in two years after being planted, requiring but the slightest care.—The cacao, recently introduced in these two provinces, bears in three or four years at most. The tamarind, which succeeds in the same localities, but especially in the country of Chiquitos, requires five years.

"Cotton yields annual crops: there are two species—the white and the yellow.

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"Tobacco grows, so to speak, without cultivation in the province of Valle-Grande, in which it is the principal article of trade. Indigo, of which there are three cultivated species, and one wild, is equally abundant. Maize ripens in three months, without regard to season. It is cultivated more particularly in the province of Cercado.

"The cassada produces in eight months after planting. There are two species of it—the one sweet, the other bitter; the former is a substitute for the potato, and even for bread itself—the latter serves only to make starch. There are many varieties or species of bananas, which produce a year after planting. They are cultivated especially in the province of Cercado. Two species of rice, white and red, are cultivated, both in the province of Cercado and Chiquitos, yielding crops every five or six months. It is said to grow wild in the country of Chiquitos.

"The vine, which flourishes particularly in the province of Cordillera, where it was cultivated in the missions until the epoch of independence, is not now made use of. It will, perhaps, hereafter, be one of the principal products of that country.

"Wheat, barley, and the potato, could be cultivated with advantage in the provinces of Chiquitos and Cordillera, but at this time they are neglected, except in the province of Villa-Grande. The culture of coca has commenced in the province of Cercado, where it is found wild; so also the quinquina on the mountains of Samaipata. As already mentioned, fruit abounds in this region —oranges, lemons, citrons, figs, papayes, pomegranates, muskmelons, water melons, chirimoyas, (which the Brazilians call *fruta do conde,*) pineapples, &c. The last mentioned of these fruits grow wild and in great abundance in the woods of Chiquitos. We met with it particularly the day before our arrival at Santa Anna. It is fine flavored, but left such a burning sensation in the mouth that I bitterly repented having tasted it.

"In the province are gathered in great abundance jalap, quinquina bark, sarsaparilla, vanilla, roucou, copahu, ipecacuanha, caoutchouc, copal, &c.

"Dye-woods, cabinet-woods, and building timber abound. The inhabitants gather with care great quantities of gums, roots, and barks, to which they attribute medicinal virtues of every kind. At several points in the department, especially in the provinces of Valle-Grande and Cordillera, are found iron, and traces of mercury. Gold is found in the province of Cercado, near the Pueblo of De San Xavi. Mines of silver were worked in the mountains of Colchus by the Jesuits. Don Sebastian Rancos, whilst he was governor of Chiquitos, announced to the government that diamonds of a very fine water had been found in the brooks about Santo-Corazon."

So anxious is Bolivia for the introduction of the steamboat upon her rivers, that she has offered for it in fee-simple 20,000 square miles of her richest lands.

To add to the interest, the resources' the charms and wealth of this country, there are the hot springs of Tolula with their wonderful properties; the ruins of Samaipata and Tiahuanaco, which, with their symbols and their hieroglyphic records, tell of a people anterior to the Incas, and, in the opinion of Castelnau, as superior to them in civilization as the conquerors were.

The passage through the forest of the Madeira valley, notwithstanding all that he had seen on his way from Rio through Brazil to this point, excited to raptures the imagination of this observant traveler. "The landscape," says he, "was the most beautiful, and the vegetation, changing its aspect every instant, constantly presented new objects to us."

The beautiful valleys of the Cordilleras, which produce the coca plant, were to him objects also of great interest.—"This vegetable, says he, "has properties so marvelous that it enables the Indians, without any other nourishment the while, to perform forced marches of five or six days." It is a stimulant, and by chewing it alone the Indians will perform journeys of 300 miles without appearing in the least fatigued.*

* The coca is described by Castelnau as a bush which rarely attains six feet in height, and does not often exceed three; its foliage is of a bright green, its flower white, and its fruit small and red. When the plants are about eighteen inches high they are transplanted from the seed beds into fields called cocules. The ripe leaves are gathered with the fingers. They are dried by spreading them in the sun, sometimes on woolen cloths. This operation requires great care; for the plant must be protected from all dampness, which changes its color, and thus diminishes its value. It is then packed in bags, weighing from fifty to one hundred and fifty pounds, which are often transported to great dis-

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In the province of Chichos are many mines of silver, and vast herds of cattle.

In the province of Lipaz, where the climate is cold and the agricultural staple barley, llamas, vicuiias, alpacas, with deer and the beautiful chinchillos, abound.—Here a kind of copperas called "piedra *lipaz*" is found; also amethysts and other precious stones; and here, too, is a great plain, 18 by 120 miles, covered with salt already fit for table use.

The Paray, a tributary of the Amazon through the Madeira, is navigable to Cuatro-Ojos, which is thirty leagues only from Santa Cruz, the capital of the republic.

But Lipaz is far to the south. It is of the Amazonian water-shed that we now wish to speak; though the tributaries of the great branches of the Amazon and the La Plata, of the Madeira, the Tapajos, and the Paraguay, so interlap among themselves that it is as difficult to find the "divide" between the Madeira and the Paraguay as it is to find it between the Madeira and the Tapajos.

In 1772 Louis Pinto de Souza caused a vessel of considerable size to be transported from the head-waters of the Madeira to those of the La Plata, that he might thus set the example of an inland navigation. The portage between the navigable waters of the two was only two miles and a half.

It is among the upper tributaries of the Madeira that the tradition of the country places the lost mines of Urucumaguan, with riches equal in value to the fabulous wealth of the gilded city of Manoa.*

On the banks of this stream are now found *placers*, which, using only gourds and calabashes for washers, will give the miner his $2 or $3 per day.

Lakes, too, are found up its tributaries, which yield the most abundant supplies of salt. The rivers abound in fish, and the woods with game.

Lieutenant Gibbon went to Bolivia to explore the valley of the Madeira, and he is now on his way down that river. The Bolivians hailed him as a benefactor, and afforded him every facility in their power.

While he was in Cochabamba the attention of that government was called to the subject of establishing, on the navigable waters of the Madeira, ports of entry to foreign commerce, and of contracting with a company to put steamers on her water-courses. The President of the republic received the proposition in the most gracious manner. Hence the valley of the Madeira becomes an object of special interest at this time, and we may therefore be pardoned for lingering in it so long.

Much of that country is unknown, and the stories that are told of its riches and its productions are so dazzling, that we of a severe climate, accustomed as we are to a stingy soil, from which its fruits have to be wrung by long and patient labor, are disposed to receive eye-witness accounts of them with some degree of allowance at least.

So far, we have made our statements, with regard to this subject, partly upon the authority of intelligent citizens of that and the neighboring country with whom we have conversed, in Peru, and partly upon the authority of M. Castelnau—a man of standing and erudition, who was sent out by the French government especially to examine that country, and with whom, therefore, overcoloring would be a crime; and, finally, upon the authority of officers whom also the government of the United States has sent there for the same purpose.

As being all of a piece with the reports which these give, we quote from the letter of a friend, written from Lima last summer, and which was before the publication of Castelnau's travels. Speak-

tances. The Indians mix the coca with a small quantity of lime, and constantly carry a small bag of it in all their excursions. They take it from three to six times a day. Dr. Tschudi (Travels in Peru, page 453,) mentions an Indian of sixty-two years of age, who was employed by him, and though at very hard work for five days, took no other nourishment, and rested but two hours of the night. Immediately, or soon after this, he accomplished a journey of one hundred miles in two days, and said that he was ready to do the same thing again if they would give him a new supply of coca. Castelnau says he himself knew of instances as extraordinary. In the time of the Incas the coca was regarded as sacred.

The importance of the coca trade, however, is diminishing as the red man disappears. From 1785 to 1789, inclusively, Castelnau represents the consumption of this leaf in the vice-royalty of Lima alone at three millions and a half of pounds, and worth one million and a quarter of money, and the total consumption of Peru at two millions and a half of dollars.

The question comes up, therefore: May not the free navigation of the Amazon introduce this valuable plant into the commerce of the world?

* Not long before Lieutenant Herndon was in Peru, a party of Peruvians, who had been on a gold exploration to the Amazon country, returned. They had nothing but gourds to wash with, and though they met with many untoward circumstances, they extracted seven hundred pounds of gold and returned home with it.

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ing of Bolivia and her enlightened President, that friend says:

"Since I last wrote to you, I have made the acquaintance of Don ——, a native of Chile, and whom Gibbon saw at Cochabamba, in Bolivia. This Don —— is undoubtedly a clever man. He says he has come to Lima to make some arrangement concerning the monopoly of Peruvian bark. * * * However that may be, he pretends that Belzu, the President of Bolivia, is favorably disposed towards us, and would grant privileges to a steam navigation company were application made to him in due form. As I know of no other individual in Bolivia with whom I could communicate on the subject of Amazonian navigation, I did not hesitate to make use of him; for, in my opinion, there is no time to be lost if the United States intend to secure the interior trade of South America for its citizens. Don —— declares that the Marmoré is navigable for steamers from a point near Cochabamba to its confluence with the Guapuré or Itenez; and so onward to the junction of the latter with the Bené, forming together the Rio Madeira; that the Cachuelas, or falls of the Madeira, are neither impassable nor formidable, and may be easily ascended by steamers, as there is plenty of water and no rocks. To prove this, he asserts that a Brazilian schooner ascended the Marmoré to Trinidad, and fired a salute at that place, about two years ago. After passing the falls, the river is of course navigable to the Amazon. Admitting this statement to be true, (and I am inclined to believe it, as the Brazilians constantly ascend the Itenez to Matto Grosso,) there is open navigation from Para to within a few leagues of Cochabamba, at least 2,000 miles; and this is not so incredible when we consider the length of navigation on the Missouri river. The accessibility of the Bolivian rivers will, however, be ascertained with greater certainty after Gibbon has passed through the Cachuelas of the Madeira, as it is to be hoped that he will sound, or otherwise minutely examine, the different rapids of that river, and correct the errors which —— says are in the chart made by Palacios, a copy of which I sent you by Mr. O'Brian, for Herndon.

"The account —— gives of the products of the country lying on the banks of the Marmoré is very glowing. He says that the richest cocoa and coffee grow almost wild, and that the greater part of the former is consumed by the monkeys and birds, for the want of means of transporting it to a market. Sugar-cane, of gigantic dimensions, is found everywhere; white and yellow cotton, of a staple equal to Sea Island. Several kinds of cascarilla grow in abundance, as also sarsaparilla and gums, ornamental and other woods, and honey and wax, in immense quantities. Crossing the Marmoré from Exaltacion to the southwest, you arrive at the river Machuno, which, according to ——, is a small Pactolus: and he assures me that the whole country between the Marmoré and the Itenez, from latitude 14 deg. to the north, is a gold district as rich as California. *My* opinion decidedly is, that the whole country traversed by the rivers opening from the slope of the eastern Cordillera, from Santa Cruz de la Tierra, in Bolivia, to the mouth of the Ucayali, in Peru, is one immense gold and silver region—gold being found in the flats near the rivers, and silver in the mountains. I will venture to predict that the same region contains diamonds and other precious stones, and probably some unknown to the lapidary at present.

"The silver mines of Carabaya were immensely productive when worked by Salcedo; so much so, that the vice-regal government trumped up an accusation against him, tried, and ordered his execution, to obtain possession of the mines by confiscation. The attempt failed, as the Indians, who were devoted to Salcedo, refused to give any information to the government respecting the mines, and they have remained unworked up to the present time. Gold is known to exist in considerable quantities at Carabaya, and in the Pampa del Sacramento. I have seen specimens from the former place. But gold is the last attraction for emigration to Bolivia. The soil and its products are the source from which the wanderers from foreign lands are to find plenty and happiness. The climate is said to be good, and the Indians, except upon the lower part of the Bené, peaceable and well disposed to the whites. In short, according to ——, the east of Bolivia affords the greatest sphere for trade and colonization.

"Without, however, placing implicit credence in what —— states, I determined to avail myself of the influence

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he undoubtedly possesses with President Belzu to forward as far as possible our plan of opening the navigation of the Amazon, and to prevent, as much as I could, the success of the Brazilian policy of exclusion. Having ascertained from —— that Guarayos, a village of four hundred inhabitants, situated at the junction of the Marmoré with the Itenez, on the Bolivian side, and Exaltacion, a town of four thousand inhabitants, were the principal places on the Marmoré below the town of Trinidad, I proposed to him to write to Belzu, and induce him to declare those places ports of entry for foreign commerce. He caught at the idea at once, and said it was '*muy luminosa*,' and wrote to the President by the last post upon the subject. He says that Belzu has declared that he will make no concessions to the Brazilleros; that the *Norte Americanos* are the people for him, as they will bring wealth, force and civilization to Bolivia.

"I cannot doubt that the Bolivian government will declare the places mentioned above—viz: Guarayos and Exaltacion—ports of entry to foreign commerce. In that event, there will be one great point gained. It will show that Bolivia wishes to open commercial relations with us; therefore we can insist that Brazil shall not throw any impediment in the way of our trade with that republic. Unfortunately, we, as individuals, have neither the power nor the means of carrying out this gigantic, this magnificent plan of opening the finest and most extensive region of the globe to population and civilization. We have gone on so far unaided by the counsel, or even the countenance, of the general government, with the exception of ——.

"For myself, I feel full of this vast subject; for I know that within less than one hundred leagues of me is the margin of those great solitudes, replete with riches, and occupying the wild space where millions of the human race might dwell in plenty and happiness, where nature annually wastes more than would support the population of China in comfort, and where the most luscious fruits and fairest flowers grow and bloom unknown and unnoticed. When I reflect on this, and on the miles of rivers rolling on in silence and neglect, I feel doubly the want of power and money to accomplish their introduction to the civilized world.

"To return to the question of internal navigation in South America. Enclosed you will find a slip from the 'Commercio' newspaper, published in this city, containing an account of the departure of a small expedition from Paucartambo to explore the river Madre de Dios.

"The Cuzcanians are alive to the importance of communicating through their rivers to the Amazon and the Atlantic Ocean, and whenever the question shall be fairly brought before the Peruvian government, and it is ascertained that the United States intend to force open the way through the Brazils, I can count upon the assistance and influence of the whole department of Cuzco, and probably of the whole number of senators and deputies from the eastern provinces of the republic. Until some action shall be taken by the government of the United States, little can be done here.

"*However, en attendant*, it would be well if you were to attempt to organize a company for the navigation of the South American rivers *generally*, because, whilst we look at the Amazon, we should not lose sight of the La Plata. The country lying upon the head-waters of that river is better populated than that on the confluence of the Amazon, and, from all I can learn, the commerce with Paraguay alone would amply repay the outlay necessary to establish a steam company for the waters of the La Plata. Possibly, if steamers were actually plying upon the Paraguay and Parana, the Brazilian government might be better disposed towards us, and the question of Amazonian navigation be amicably settled. You may rest assured that if the United States do not move shortly in the matter, some other nation will.

"Even the Bolivians themselves are beginning to wake up to the importance of opening a communication with the Atlantic. The subject is touched upon in the enclosed articles from the 'Commercio,' published in this city. The Bahia Negra is not put down on the map I have, nor are Guturriz, the lake Izozos, the river Otuquis, nor the Lativegnique; but it appears to me that a better or more direct route to the Paraguay from Chuquisaca (Sucre) would be down the Pilcomayo, which passes within a few leagues of the town. I am not aware

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whether that river is navigable, nor whether the country it flows through is at all productive. I presume not, as it traverses the Gran Chaco desert.

"I think that the energies and influence of all the friends of South American internal navigation and colonization should be directed towards forming a company with a large capital, and to obtain the aid and support of the Congress of the United States. I know how difficult an undertaking it is to wring an appropriation out of our national legislature for any purpose; but if the subject could be fairly brought before it, and some of the leading senators and representatives could be excited to take a patriotic interest in it, perhaps something might be done.

"We must, on our side, do all we can, and by dint of perseverance may succeed at last in accomplishing our object. Should we do so, it will be a proud satisfaction to ourselves, though the public may, and probably will, leave us to exclaim: '*Hos ego versiculos feci, tulit alter honores.*'

"I shall continue working on, and writing to you whenever I have anything of the least interest to communicate."

We think that from this showing we are entitled to say that commerce up and down the Amazon now with Bolivia is not an abstraction.

Just as we are concluding this chapter, we receive a communication from South America, stating that in all probability Bolivia will make, in the month of December, 1852, Exaltacion, on the Madeira, and Reyes, on the Beni—both belonging to the Amazonian water-shed and to the tributaries of the Madeira—*free ports to the commerce of the world;* and that the sum of $10,000 will be offered as a reward to the first steamer that shall arrive at either one of these places.

The results of Lieutenant Gibbon's exploration of these water-courses are, moreover, looked for, it is said, with exceeding interest by the Bolivians.

About one-half of Bolivia, two-thirds of Peru, three-fourths of Ecuador, and one-half of New-Granada are drained by the Amazon and its tributaries. For the want of steamboat navigation on these water-courses, the trade of all these parts of those countries goes west by caravans of mules to the Pacific. There. it is shipped, and, after doubling Cape Horn and sailing eight or ten thousand miles, it is then only off the mouth of the Amazon, on its way to the United States or Europe; whereas, if the navigation of the Amazon were free to these countries, the steamers on that river would land their produce at the mouth of the Amazon, for what it costs to convey it across the Andes on mules to the Pacific.

A question, therefore, of the greatest importance to these republics is the free navigation of that river. The introduction of the steamboat upon their tributaries of it would be followed by the immigrant up the Amazon, who would soon make a perfect garden-spot of the splendid provinces that are on its banks.

The distance between the sources of the Amazon, in Peru, and her Pacific coast is, at the nearest point, not more than sixty or seventy miles.

The province of Caxamarca, which is upon the Amazonian water-shed in Peru, has a population of 70,000. It is said to be the healthiest part of the world. In 1792 (according to M. Martin) there were eight persons in it whose respective ages were 114, 117, 121, 131, 132, 141, and 147; and one person died there at the age of 144 years, seven months, and five days, leaving 800 living descendants. The city of Caxamarca is in 7° south.

There are upon this water-shed, in Bolivia, the cities of Chuquisaca, Cochabamba, and Santa Cruz; in Peru, the famous city of Cuzco, Huancavelica, (celebrated for the richest quicksilver mines in the world,) Tarma, Caxamarca, and Moyabamba; and in Ecuador, the celebrated city of Quito, besides numerous other towns, villages, and hamlets in them all.

The revolution which the discovery of the passage around the Cape of Good Hope made in the trade of the East was not greater than that which the free navigation of the Amazon would make in the trade in these four republics. It would make of them new countries and a new people. Total population at present estimated between seven and eight millions.

In May, 1851, Lieut. Herndon set out from Lima, on his way to explore the Amazon; and it is through him that we derive most of the following information concerning the Peruvian water-shed of that river.

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We therefore introduce the reader upon that water-shed by an extract from his journal, which he has kindly permitted us to make. Standing in view of three beautiful lakes—one of them, Morococha, or "Painted Lake," being that from which the head waters of the Amazon flow—he remarks:

"Though not yet sixty miles from the sea, we had crossed the great 'divide' which separates the waters of the Pacific from the waters of the Atlantic. The last steps of our mules had made a striking change in our geographical relations—so suddenly and so quickly had we been cut off from all connection with the Pacific, and placed upon waters that rippled and sparkled joyously as they danced by our feet on their way to join the glad waves of the dark blue ocean that washes the shores of our own dear land. They whispered to me of home, and my heart went along with them. I thought of Maury, with his researches concerning the currents of the sea; and recollecting the close physical connection pointed out by him as existing between these the waters of the Amazon and those of our own majestic Mississippi, I musingly dropped a bit of green moss, plucked from the hill-side, upon the bosom of the placid Morococha, and as it floated along I followed it, in imagination, down through the luxurious climes, the beautiful skies, and enchanting scenery of the tropics, to the mouth of the great river that this little lake was feeding; thence across the Caribbean Sea, through the Yucatan pass into the Gulf of Mexico; thence along the gulf stream, and so out upon the ocean off the shores of our own 'land of flowers.' Here I fancied it might have met with silent little messengers cast by the hands of sympathizing friends and countrymen high up on the head-waters of the Mississippi, or away in the Far West, upon the distant fountains of the Missouri.

"It was indeed but a bit of moss that was floating upon the water while I mused. But fancy, awakened and stimulated by surrounding circumstances, had already converted it into a skiff manned by fairies, and bound upon a mission of high import, bearing messages of peace and good-will, and telling of commerce and navigation, of settlement and civilization, of religious and political liberty, from the 'King of Rivers' to the 'Father of Waters,' and possibly meeting in the Florida Pass, and speaking through a trumpet louder than the tempest, with sprites sent down by the naiads of Lake Itaska with greetings to Morococha.

"I was now for the first time fairly in the field of my operations.

"I had been sent to explore the valley of the Amazon, to sound its streams, and to report as to their navigability. I was commanded to examine its fields, its forests, and its rivers, that I might guage their capabilities, active and dormant, for trade and commerce with the states of Christendom, and make known to the spirit and enterprise of the age the resources which lie in concealment there, waiting for the touch of civilization and the breath of the steam-engine to give them animation, life, and palpable existence.

"Before us lay this immense field, dressed in the robes of everlasting summer, and embracing an area of thousands upon thousands of square miles, on which the foot-fall of civilized man had never been heard. Behind us towered, in forbidding grandeur, the crests and peaked summits of the Andes, clad in the garb of eternal winter.

"The contrast was striking and the field inviting. But who were the labourers? Gibbon and I. We were all. The rest were not even gleaners. But it was well. The expedition had been planned and arranged at home with admirable judgment and consummate sagacity; for had it been on a grand scale, commensurate with its importance, or even larger than it was, it would have broken down with its own weight.

"Though the waters where I stood were bound on their way to meet the streams of our northern hemisphere, and to bring, for all the practical purposes of commerce and navigation, the mouth of the Amazon and the mouth of the Mississippi into one, and place it before our own doors; yet from the head of navigation on one stream to the head of navigation on the other, the distance to be sailed could not be less than ten thousand miles.

"Vast, many, and great, doubtless, are the varieties of climates, soils, and productions within such a range. The importance to the world of settlement, cultivation and commerce in the valley of the Amazon cannot be over-estimated. With the climates of India, and of all the

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habitable portions of the earth, piled one above the other in quick succession, tillage and good husbandry here would transfer the productions of the East to this magnificent river-basin, and place them within a few days' easy sail of Europe and the United States.

"Only a few miles back we had first entered the famous mining districts of Peru. A large portion of the silver which constitutes the circulation of the world, was dug from the range of mountains upon which we were standing, and most of it came from that slope of them which is drained off into the Amazon. Is it possible for commerce and navigation up and down this majestic water-course and its beautiful tributaries, to turn back this stream of silver from its western course to the Pacific, and conduct it with steamers, down the Amazon, to the United States, there to balance the stream of gold with which we are likely to be flooded from California and Australia.

"Questions which I could not answer, and reflections which I could not keep back, crowded upon me. Oppressed with their weight and the magnitude of the task before me, I turned slowly and sadly away, secretly lamenting my own want of ability for this great undertaking, and sincerely regretting that the duty before me had not been assigned to abler and better hands."

The Amazon, in Peru, is called the Maranon. It takes its rise in about 11 deg. south, and flows N. N. W. for about five hundred miles; thence turning east, and constituting, according to the maps, (but the maps are wrong,) the boundary line between Peru and Ecuador for about eight hundred miles by its windings.—Crossing in Peru the head-waters of the main stream, Lieut. Herndon reached the banks of the Huallaga, a noble tributary, and embarked upon it at Tinga-Maria. He descended it to its junction with the main stream, and thence to the mouth of the latter by a river navigation of not less than three thousand five hundred miles.

At Tarapoto he fell in with a clever New-England blacksmith, who had been in that country for many years, and from whose valuable notes concerning the commercial resources of the places visited by him, we derive the following:

Tarapoto, situated on the left bank of the Huallaga, six leagues above Chasuta, the head of uninterrupted navigation from the sea, is one hundred and thirty leagues from the city of Huanuco, and twenty-four from Moyabamba. Climate very healthy, and free from all annoying insects.

It is situated on a beautiful plain of from twenty to twenty-five leagues in circumference, which is intersected by many rivulets. The soil is fertile, producing in great abundance cotton, coffee, sugar, indigo, and cocoa, as well as everything else to which the climate is adapted. Here the plantain continues, without any other care than that required to remove the noxious weeds, to produce in full vigor from fifty to sixty years. Cotton gives a crop in six months from the seed; rice in five months; and indigo grows wild. Neat cattle and sheep thrive here and multiply most rapidly. Population of the town and its two ports in 1848, 5,350; annual births about 235; deaths, 40. Principal branch of industry, cotton cloth, of which they manufacture between thirty-five and forty thousand yards. It is made by hand, and one yard of our common coarse cotton is worth there two of that.

The currency is white wax and this coarse cotton stuff of the country, which in Chachapoyas is worth twelve cents the yard.

One pound of white wax is worth four yards of cotton; a good-sized bull one hundred yards; a well-grown fat hog, sixty yards; a big sheep, twelve yards; twenty-five pounds of coffee, six yards; twenty-five gallons of rum, twelve yards; a laying hen, four ounces of wax; a chicken, two ounces; twenty-five pounds of rice in the husk, a half pound of wax; twenty-five pounds of corn, two ounces; twenty-five pounds beans, four ounces; a basket of yucas, weighing from fifty to sixty pounds, two ounces; twenty-five pounds seed cotton, eight ounces; a bunch of plantains, weighing from forty to fifty pounds, *three* needles. Storax, cinnamon, milk of trees, gums, and other products of the forests have no fixed value; but they may be had in quantity from the Indians at merely nominal prices.

The land transportation from Tarapoto to Moyabamba, with its population of 15,000, is done on the backs of Indians. Seventy-five pounds make a load, and the freight is six yards of cotton, valued at three yards of our common "fi'penny bit" stuff.

The pay of a common labourer is four

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ounces of wax a day and found, "with *chicha* at discretion."

This is the most important town in the province of Mainas, on account of its proximity to navigable waters, and its connection with such a large extent of territory that is not liable to overflow.

From Tarapoto to Chasuta you pass the villages of Juan Guerra and Shapaya. Chasuta is at the head of uninterrupted navigation on the Huallaga. Lieutenant Herndon, coming down at low water, met between this place and the mouth of the Amazon with nowhere less than five feet of water. The high-water mark is forty feet above the stage in which the river was when he was there. From Chasuta to the mouth of the Amazon the distance by water is upwards of 3,000 miles; and for half the year the Pennsylvania, seventy-four, would find water enough to reach that village from the sea.

Population of Chasuta 1,031; distance to Tarapoto by land six leagues; cost of transportation, one pound of wax the Indian load, one pound of wax being equivalent to four yards of cotton.—Cows, sheep, horses and hogs thrive well. Productions those of Tarapoto.

Yunimaguas, twenty-four leagues below Chasuta; population 319; country fertile. A good road can be cut from this place almost *in a straight line* to Moyabamba, distance thirty leagues.

Santa Cruz is thirty-five leagues below Chasuta. Here white wax is worth one and a third yards cotton, and five pounds wax are sold for one white-handled knife. Population 300.

Chamicuros, thirty-nine leagues below Chasuta, with a population of 331. Valuable resins and gums abound in the woods.

Laguna, forty-four leagues below Chasuta, and four above the mouth of the Huallaga, has a population of 742, and a fertile soil.

Urarinas, on the Amazon, five leagues below the mouth of the Huallaga—population forty-three. This is an important place on account of the immense quantities in its vicinity of the tree which produces the gum-copal.

Passing by the villages of Paranari and San Regis, we come to Nauta, the capital of the district. It is situated on the right bank of the Amazon, forty-six leagues below the mouth of the Huallaga, and ninety-four below the head of uninterrupted navigation on that river.

It is to this place that Brazil, by treaty with Peru, has just contracted for a line of steamers, under the Brazilian flag, from Para, at the mouth of the Amazon. This line is to have a monopoly of steamboat navigation on the Amazon for thirty years, with a bonus of 100,000 per annum for the first fifteen.

It therefore becomes a place of importance; and, as I shall have occasion to allude to it again in connection with this steamboat line, under the Brazilian flag, we will here take no more notice of it.

Nauta is also only half a league above the mouth of the Ucayali, another tributary of the Amazon, and larger than the Huallaga—population 810.

Here one yard of English or American cotton is worth two and two-thirds yards of the cotton cloth of the country; and thirty-four pounds of sarsaparilla are given for eight yards of the latter; a full-grown hen is worth six needles; a chicken three; and fifty or sixty pounds of yucas six. A Portuguese merchant has established a house here.

Amaguas, seven miles below Nauta, is an important point, (though at present it has but 240 inhabitants,) on account of its great extent of fertile lands.

Passing Amaguas with its 240 inhabitants, Iquitos with its 127, and Arau with its 80, we arrive, twenty-seven leagues below the mouth of the Ucayali, which comes from the south, at the mouth of the Rio Napo, a tributary from Ecuador. There is here a settlement consisting of one family of Mitos Indians and one fugitive slave from Brazil—total thirty-one.

This river is two hundred yards broad at its mouth, and is navigable for three hundred miles. It is rich in gold; its banks are inhabited by hostile tribes of Indians, and covered with sarsaparilla and other valuable products of the forests. These Indians make the finest and most beautiful hammocks that are found in the Pampa del Sacramento; price of a hammock two yards of cotton. The trade in poisons makes this an important place.

Pebas is thirteen leagues below the mouth of the Napo; has a population of 387, and a fine country round about.—Its productions are white and black wax,

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sarsaparilla, vanilla, poisons, storax, "chambira," hammocks, pitch, copal, incense, India rubber, milk of the cow-tree, and many curiosities, which the Indians, who, though wild and savage, are friendly to the white man, usually bring in exchange for beads, trinkets, &c., White wax is worth two yards of cotton; black, one and a half; thirty-four pounds sarsaparilla, twenty-four yards; hammock, two yards; a little pot of poison, four yards; one pound vanilla, eight yards.

Thence to Loreto, the frontier town of Peru, we have five small villages. Loreto is 160 leagues below the head of uninterrupted navigation of the Huallaga: population, 122. In this village you find a preparation from the wild yuca, which is very palatable, wholesome, and nutricious. It is a good substitute for bread.

Sarayacu, situated on the right bank of the Ucayali, 300 miles above its junction with the Amazon, has a population of 1,270.

This is an important point in the midst of a fertile region. Eight or ten miles above this town the Ucayali receives the Ahuaytia, which takes its rise almost on the banks of the Huallaga. A few miles up this tributary bring you to a great sarsaparilla country. This drug costs here eight yards of the cotton cloth of the country the one hundred pounds; which one hundred pounds are worth $25 in Para, and from $40 to $60 in Europe, according to the markets. These eight yards of cotton for the one hundred pounds of sarsaparilla, according to the statement of this clever blacksmith, are worth four yards only of our coarse cotton.

Let us, therefore, for the sake of illustration, trace this trade through its entire course.

The American or English peddler to the Amazon—for trader he is not—buys in New-York or Liverpool, as the case may be, four yards of cotton, for which he pays twenty-five cents. He ships it thence around Cape Horn to Callao.—Here it pays duty at the Peruvian custom-house, and is sent thence to Lima by mule. By this time, what with freight, transportation, and commissions, it has cost the purchaser fifty cents. It is then packed on mules, carried across the Andes, and in about twelve months from the time of its leaving New-York or Liverpool it arrives at the mouth of the Ucayali, where it is sent up by boat, which occupies three hundred working hours in going up three hundred miles to Sarayacu and the sarsaparilla country. Here this piece of four yards is exchanged in barter, according to Hacket, the New-England mechanic, from whom we have been quoting, for one hundred pounds of that drug. A shipment of the return cargo is then made in the rude river raft of the country, and this one hundred pounds of sarsaparilla, bought with four yards of "fi'-penny-bit" cotton, when it reaches the Amazon, is worth $9 in Nauta, $10.50 in Tabatinga, $25 at Para, and $50 at New-York or Liverpool. The voyage has been a long and a tedious and a roundabout one, but the profits are enormous.

Now, if Peru and Brazil, instead of forcing commerce with their interior provinces to go around "Robin Hood's barn" to get there, would open ports of entry to all nations and permit them to use the navigation of the Amazon, the citizens and subjects of Peru and Brazil, instead of getting four yards of cotton for their one hundred pounds of sarsaparilla, would get three or four hundred yards for it.

It would be difficult to quote any example more strikingly illustrative of the advantages to Peru of that "policy of commerce" which calls for the establishments of ports of entry at the head of navigation on the Maranon, as the main trunk of the Amazon is here called; at Chasuta, the head of navigation on the Huallaga; at the head of navigation on the Ucayali; and at Nautau, which is at the junction of this last with the Amazon.

So Ecuador might establish ports of entry on her side of the Amazon, at Borja, if the navigation be uninterrupted that far, and if Borja belong to her; and at the head of navigation at each one of her Amazonian tributaries, as the Pastaza, the Napo, the Putomayo, and the Japura; though the head of navigation of the last is perhaps in New Granada.

Now, if one of these republics should declare such places free ports to all the world, or ports of entry to the commerce of all nations at peace with her, surely Brazil would not in this enlightened day, if an American or an Englishman should wish to wear his own flag and go up in his own bottom under it on a trading voy-

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age to those ports—surely, we say, Brazil would not at this day attempt to play the part of Japan, and hinder those vessels from passing by her doors to other parts of the world.

The Pastaza, we are informed on the authority of our old friend, Gen. Villamil, the Secretary of State of Ecuador, is navigable nearly up to Quito; and, it is well known that the sands of most of those streams are auriferous.

Tabantinga is the frontier post of Brazil on the Amazon. Thence ascending, we have an uninterrupted navigation along the main trunk of the Amazon, which here courses through the northern parts of Peru, and not far from the southern boundary of Ecuador, for the distance of 500 or 600 miles. Thus a steamboat may reach the foot of the Andes.

Lieut. Herndon entered the Amazon four hundred and sixty miles above the Brazilian boundary, and he thus describes the river there:

"The Amazon, where it receives the Huallaga, is five hundred yards broad. The march of this great river in its silent grandeur was sublime; but, in the untamed might of its turbid waters, as they cut away its banks, tore down the gigantic denizens of the forests and built up islands, it was awful. It rolled through the wilderness with a stately and solemn air; its waters looked angry, sullen, and relentless, and the whole scene, as the noise of the falling trees came booming at distant intervals across the forest, awoke emotions of awe and dread, such as are caused by the funeral solemnities, the minute-gun, the howl of the wind, and the angry tossings of the waves, when all hands are called 'to bury the dead' in a troubled sea.

"Though the river was not at its full, it reminded me of our Mississippi at its topmost floods. The waters are quite as muddy and quite as turbid, but the Amazon lacked the charm and the fascination which the plantation upon the bank, the city upon the bluff, and the steamboat upon the water, lend to its fellow of the north; nevertheless, I felt pleasure at its sight. I had already traveled seven hundred miles by water, and fancied that this powerful stream would soon carry me to the ocean. But the water travel was comparatively just begun; many a weary month was to elapse ere I should again look upon the familiar face of the sea, and many a time, when worn and wearied with the canoe life, did I exclaim, 'This river seems interminable.'

"Its capacities for trade and commerce are inconceivably great. Its industrial future is the most dazzling; and to the touch of steam, settlement, and cultivation, this rolling stream and its magnificent water-shed would start up into a display of industrial results that would make the valley of the Amazon one of the most enchanting regions on the face of the earth."

"From its mountains you may dig silver, iron, coal, copper, quicksilver, zinc, and tin; from the sands of its tributaries you may wash gold, diamonds, and precious stones; from its forests you may gather drugs of virtues the most rare, spices of aroma the most exquisite. gums and resins of the most useful properties, dyes of hues the most brilliant, with cabinet and building woods of the finest polish and most enduring texture. Its climate is an everlasting summer, and its harvest perennial."

ART. IV.—CONNECTION OF THE ATLANTIC WITH THE GULF—INTERESTS OF ALABAMA.

MONTGOMERY AND PENSACOLA RAIL-ROAD.

FEW subjects are more interesting than to trace the developments of different sections of the country when connected by means of rail-roads, and the other various systems of internal communications. The commercial independence of the South has become no longer problematical. We possess the finest rivers, the richest soil, the best harbors, and the most valuable agricultural productions, not only of the Union, but of the whole world. It has been aptly said that "*Cotton is King*," since every thing of commercial importance depends upon it in the way of exchange. The cotton planter has, until very recently, conti

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